

Composite PP

SI51C

High heat-resistance & high gloss PP composite

Application

Electrical and electronic parts, Household goods parts, Rice cooker housing

Characteristics

High heat resistance and stiffness, Long term thermal resistance, Food applications that requires hygiene

Physical properties

Item	Test Method	Unit	Typical Value
Melt index (230°C)	ASTM D1238	g/10min	12
Specific gravity	ASTM D792	g/cm ³	1
Tensile strength (at yield)	ASTM D638	kg/cm ²	400
Elongation (at break)	ASTM D638	%	100
Flexural modulus	ASTM D790	kg/cm ²	25,000
Izod Impact Strength (23°C)	ASTM D256	kg cm/cm	4
Rockwell hardness	ASTM D785	R scale	110
Heat distortion temperature	ASTM D648	°C	140
Shrinkage Ratio	HTC METHOD	%	1.3 ~ 1.5

Note: The above physical property value is a representative value for reference and is not a product quality standard.

Processing conditions

Item	Unit	Typical value
Cylinder temperature (rear)	°C	170 ~ 190
Cylinder temperature (middle)	°C	180 ~ 200
Cylinder temperature (front)	°C	180 ~ 210
Nozzle temperature	°C	180 ~ 210
Mold temperature	°C	50 ~ 70
Injection pressure	kg/cm ²	400 ~ 700
Back pressure	kg/cm ²	5 ~ 20
Injection speed	%	40 ~ 70

※ Actual injection conditions should be adjusted according to the type of injection machine, mold, and part size.

Certification

For further inquiries, please contact Hanwha TotalEnergies Petrochemical Composite Development Team.

Contact information

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